

**AN APPARATUS AND METHOD FOR ACCOMMODATIVE STIMULATION OF AN
EYE AND SIMULTANEOUS IPSILATERAL ACCOMMODATIVE IMAGING**

Abstract of the Invention

An apparatus comprising an accommodative stimulation device, an electromagnetic wave exposure device, and an imaging device. The apparatus acquires imaging information about an eye by means of the electromagnetic wave exposure device and the imaging device as the apparatus simultaneously stimulates the eye to undergo at least one reversible accommodative transition from any first state of accommodation to any second state of accommodation by means of the accommodative stimulation device. The accommodative stimulation device has an axis of projection that is substantially perpendicular to a visual axis of the eye, along which axis of projection an adjustable accommodative target is projected through a system of Badal optics, having a Badal optical axis coincident with the axis of projection, to strike a half-silvered mirror lying in a plane that forms an angle of about 45 degrees with the axis of projection and the visual axis of the eye.